

CLAIMS

1. A thermoprocessable polymeric composition comprising ethylene/chlorotrifluoroethylene copolymers containing from 0.5 to 20% by moles of ethylene, optionally in combination with the chlorotrifluoroethylene homopolymer, wherein the composition contains in total from 90 to 99.5% by moles of chlorotrifluoroethylene and from 0.5 to 10% by moles of ethylene; said polymeric composition having a second melting temperature (T_{mII}) higher than 185°C, preferably higher than 200°C.
2. A composition according to claim 1, containing in total from 1 to 6% by moles of ethylene, preferably from 1 to 5% by moles.
3. A composition according to claims 1-2, having a Melt Flow Index (M.I.) higher than 0.5 g/10', preferably higher than 2.0 g/10'.
4. Compositions according to claims 1-3, comprising a nucleating agent.
5. Foamable compositions according to claims 1-4 consisting essentially of:
 - A) 50-99.9% by weight, preferably 70-95%, of the thermoprocessable polymeric composition according to claims 1-3;
 - B) 0.1-50% by weight of a nucleating agent, under fine

powder, having an average particle size lower than 50 micron, preferably lower than 20 micron, and a melting temperature higher than 250°C.

6. Foamable compositions according to claims 4-5, wherein the nucleating agent is selected between the tetrafluoroethylene homopolymer (PTFE) or its copolymers having second melting temperatures higher than 250°C.
7. Foamable compositions according to claims 1-6, wherein the nucleating agent B) is the tetrafluoroethylene homopolymer (PTFE) having a number average molecular weight lower than 1,000,000, preferably lower than 500,000.
8. Foamable compositions according to claim 6, wherein the TFE copolymers are selected from the TFE copolymers with perfluoroalkylvinylethers wherein the alkyl is a C₁-C₃, TFE copolymers with perfluorodioxoles, or TFE copolymers with hexafluoropropene (FEP), optionally containing perfluoroalkylvinylethers from 1 to 3 carbon atoms.
9. Foamable compositions according to claims 4-8, wherein the nucleating agent B) is a polytetrafluoroethylene (PTFE) irradiated with gamma rays or electron beam.
10. Compositions according to claims 4-9, wherein the nucleating agent is used in an amount from 5 to 30% by weight, more preferably from 10 to 20%.

11. Foamed molded articles and foamed coatings of electrical cables obtainable according to claims 4-10.
12. A process to prepare the composition according to claims 1-3 by emulsion copolymerization of ethylene with chlorotrifluoroethylene (CTFE) wherein all the CTFE is first charged in the reactor, continuously feeding the ethylene until a partial CTFE conversion, preferably from 40 to 80% by weight, then by interrupting the ethylene feeding and continuing the polymerization until a substantial CTFE conversion.